

**3-PART CSI MASTERFORMAT SPECIFICATION
SECTION 07 7200
ROOF ACCESSORIES: ROOF HATCH AND SMOKE VENT**

Rev 03/26

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Roof Hatches.
 - a. ThermalMax thermally broken Roof hatch, Single-leaf metal lid for ladder access, Superior energy efficiency with a cover and curb design that minimizes heat transfer between interior and exterior metal surfaces.
 - 2. Accessory Products for Roof Hatches
 - a. Safety Railings for all roof hatches
 - b. Safety posts for vertical ladder access roof hatches
 - c. Remote-controlled operation

1.2 RELATED REQUIREMENTS:

- A. Division 05 for ladders and stairs.
- B. Division 07 for roofing and sealants.

1.3 COORDINATION

- A. Coordinate layout and installation of roof accessories with roofing membrane and base flashing and interfacing and adjoining construction to provide a watertight installation.
- B. Coordinate dimensions with rough-in information or Shop Drawings of equipment to be supported.

1.4 ACTION SUBMITTALS

- A. Shop Drawings: Indicate configuration and dimension of components, adjacent construction, required clearances and tolerances, and other affected Work.
 - 1. Hatch Units: Show types, elevations, thickness of metals, and full-size profiles.
 - 2. Hardware: Show materials, finishes, locations of fasteners, types of fasteners, locations and types of operating hardware, and details of installation.
 - 3. General: Show connections of units and hardware to other Work. Include schedules showing location of each type and size of unit
- B. Product Data: Manufacturer's technical data for each type of hatch assembly, including setting drawings, templates, finish requirements, and details of anchorage devices.
 - 1. Include complete schedule, types, locations, construction details, finishes, latching or locking provisions, and other pertinent data.

1.5 INFORMATIONAL SUBMITTALS

- A. Provide manufacturer's standard warranty.
- B. Sustainable Design Submittals:
 - 1. Building Product Disclosure Requirements: To encourage the use of building products that are working to minimize their environmental and health impacts, provide the following information when available:
 - a. Material Ingredients Documentation demonstrating the chemical inventory of the product

1.6 CLOSEOUT SUBMITTALS

- A. Manufacturer's Installation Instructions and Operation & Maintenance: Indicate installation, operation and maintenance requirements and rough-in dimensions.

1.7 QUALITY ASSURANCE

- A. Regulatory Requirements:
 - 1. OSHA 29 CFR 1910.23 Ladders
 - 2. OSHA 29 CFR 1910.28 Duty to have fall protection
 - 3. OSHA 29 CFR 1910.29 Fall protection systems and falling object protection—criteria and practices.
 - 4. OSHA 29 CFR 1926.502 Fall protection systems criteria
 - 5. International Building Code (IBC) Section 1013.6 Roof Access
 - 6. International Building Code (IBC) Section 1009.11 Means of Egress, Stairways, Stairway to Roof

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site ready use.
- B. Exercise proper care in handling of Work so as not to disrupt finished surfaces.
- C. Store materials under cover in a dry and clean location off the ground.

1.9 WARRANTY

- A. Provide manufacturer's standard 5-year warranty. Roof hatches and smoke vents shall be free from manufacturing defects in materials and fabrication for a period of 5 years from the date of shipment. Should a product fail to function in normal use within this period, manufacturer shall furnish a replacement or new part at Babcock-Davis discretion.

PART 2 - PRODUCT

2.1 MANUFACTURER

- A. Babcock-Davis
9300 73rd Ave N
Brooklyn Park, MN 55428
Available exclusively through Logistics Lighting with an extended warranty and National Account pricing. Contact for quotes or product questions: Sales@LogisticsLighting.com or 307-633-9696 or Toll-Free at 844-455-7283 website: www.LogisticsLighting.com

2.2 ROOF HATCH

- A. Roof Hatches:

1. Type and Size: ThermalMax (RHT) thermally broken Roof hatch, Single-leaf metal lid for ladder access, Superior energy efficiency with a cover and curb design that minimizes heat transfer between interior and exterior metal surfaces. [BRHTA36X30 **36 by 30 inches (900 by 750 mm)**] [BRHTA36X36 **36 by 36 inches (900 by 900 mm)**] [BRHTA48X48 **48 by 48 inches (1220 by 1220 mm)**] [BRHTA30X54 **30 by 54 inches (750 by 1370mm)**] [BRHTA60X60 **60 by 60 inches (1524 by 1524 mm)**][As selected by Architect from manufacturer's full range] [as indicated on drawings]
 - a. Loads: Minimum **40-lbf/sq. ft. (1.9-kPa)** external live load with a maximum deflection of 1/150 of the span and **20-lbf/sq. ft. (0.95-kPa)** internal uplift load.
 - b. Hatch Material:
 - 1) Cover: **0.0907-inch (2.3 mm)** aluminum cover. Interior and exterior surfaces shall be thermally broken to minimize heat transfer and to resist condensation. Cover shall have a heavy extruded EPDM acoustical rated gasket bonded to the cover interior to assure a continuous seal when compressed to the top surface of the curb.
 - 2) Cover insulation: Foil faced Single layer **3-inch (76 mm)** rigid polyisocyanurate insulation covered by **0.0907-inch (2.3 mm)** aluminum liner. (R-value = 20.3) (U=0.284 W/m2K)

Curb height in "curb: paragraph below may be determined by adding thickness of roof insulation to the minimum base flashing height recommended by roofing membrane manufacturer or established by office practice.

- 3) Curb: **0.0907 inch (2.3 mm)** aluminum with a single wall curb, integral metal cap flashing of the same gauge and material as the curb, fully welded at the corners. EZ tab counterflash, **9 inches (228 mm)** on center, to be bent inward to hold single ply roofing membrane securely in mounting flange continuous around base of frame. Pre-drilled nailing and bolt mounting holes.
 - a) Fabricate curbs to minimum height of **12 inches (305 mm)** above roofing surface unless otherwise indicated.
 - b) Sloping Roofs: Where slope or roof deck exceeds 7:12, fabricate curb with perimeter curb height that is tapered to accommodate roof slope so that top surfaces of perimeter curb are level.
 - 4) Curb insulation: Foil faced Single layer **3 inch (76 mm)** continuous rigid polyisocyanurate insulation. (R-value = 20.3) (U=0.284 W/m2K)
 - c. Finish: Mill finish
 - d. Hardware:
 - 1) Hinge Assembly: Pintle hinge with stainless steel hinge pin.
 - 2) Spring: Gas spring with integrated damper.
 - 3) Hold Open Device: Automatic hold open arm. Zinc-plated steel with red vinyl grip handle cover.
 - 4) Latch: Zinc plated steel spring-type slam latch with inside and outside operating turn handles and padlock hasp provisions.
 - 5) Pull Handle: Interior pull down handle, powder coated safety yellow.
- B. Safety Railing System: Model BSRB Roof-hatch manufacturer's standard system including rails, clamps, fasteners, safety barrier at railing opening, and accessories required for a complete installation; attached to roof hatch and complying with 29 CFR 1910.28 and 1910.29 requirements and authorities having jurisdiction.
 1. Height: **42 inches (1060 mm)** above finished roof deck.
 2. Rails:
 - a. Aluminum, **1-1/4 inch (31 mm), 1.66 inch (42 mm)** outside diameter, schedule 40 pipe, 6061-T6 alloy
 - b. Finish: **[TGIC Polyester powder coat paint]** <Insert finish>.

- c. Color: **[Safety Yellow] [As indicated by manufacturer's designations] [Match Architect's sample] [As selected by Architect from manufacturer's full range] <Insert color>.**
 - d. Fittings: 5052-H32 Cast aluminum alloy with set screw hold.
 - e. Mounting Brackets: **3/16 inch (4.75 mm)** steel, zinc plated with nut backing plate.
 - f. Exit: Self-closing gate, **1-1/4 inch (32 mm)** aluminum, self-closing with coil spring.
- C. Ladder-Assist Post: Model BSP Roof-hatch manufacturer's standard device for attachment to roof-access ladder.
- 1. Operation: Post locks in place on full extension; release mechanism returns post to closed position.
 - 2. Height: **42 inches (1060 mm)** <Insert dimension> above finished roof deck.
 - 3. Material: **[Steel tube] [Stainless steel] [Aluminum].**
 - 4. Post: **1-1/2 inch (38.1mm)** by **1-1/2 inch (38.1mm)** by **1/8 inch (2.3mm)** <Insert dimension> diameter high strength square.
 - 5. Finish: **[Manufacturer's standard baked enamel or powder coat] <Insert finish>.**
 - 6. Color: **[As indicated by manufacturer's designations] [Match Architect's sample] [As selected by Architect from manufacturer's full range] <Insert color>.**
- D. Safety Grab Bar: Model BSGB provide safe access through roof hatches while providing added functionality and weight bearing support
- 1. Operation: mounts through a corner section through the curb counterflashing.
 - 2. Material: Aluminum pipe **1-1/4 inch (32 mm)** inside diameter Schedule 40 ATSM A53 Seamed Steel
 - 3. Fittings: Cast aluminum alloy with set screw hold
 - 4. Hardware: Hex head bolts **3/8 inch (9.5 mm)** by **3/4 inch (19 mm)**
 - 5. Finish: **[Manufacturer's standard baked enamel or powder coat] <Insert finish>.**
 - 6. Color: **[Safety Yellow] [As indicated by manufacturer's designations] [Match Architect's sample] [As selected by Architect from manufacturer's full range] <Insert color>.**

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions: Examine areas and conditions under which Work is to be performed and identify conditions detrimental to proper or timely completion.
- B. Verify that deck, curbs, roof membrane, base flashing, and other items affecting Work of this Section are in place and positioned correctly.
- C. Verify tolerances and correct improper condition
- D. Identify conditions detrimental to providing proper quality and timely completions of work.
- E. Do not proceed with installation until detrimental conditions have been corrected.

3.2 INSTALLATION

- A. Comply with manufacturer's recommendations.
- B. Coordinate installation of components of this Section with installation of roof deck, roof structure, roofing membrane, and base flashing.
- C. Coordinate installation of sealant and roofing cement with Work of this Section to ensure water tightness.
- D. Securely anchor roof accessories in compliance with manufacturer's instructions.

- E. Set units plumb, level, and true to line without warp or rack. Separate metal from incompatible metal or corrosive substrates, including wood, by coating concealed surfaces, at locations of contact, with bituminous coating or providing other permanent separation.
- F. Flange Seals: Unless otherwise indicated, set flanges of accessory units in a thick bed of roofing cement to form a seal

3.3 ADJUSTING

- A. Adjust movable parts for smooth operation
- B. Operational Units: Test-operate units with operable components. Clean and lubricate joints and hardware. Adjust for proper operation.

3.4 CLEANING

- A. Clean exposed surfaces per manufacturer's written instructions. Touch up damaged metal coatings.

END OF SECTION